

# Outside Looking In - Exterior Angles

Name \_\_\_\_\_

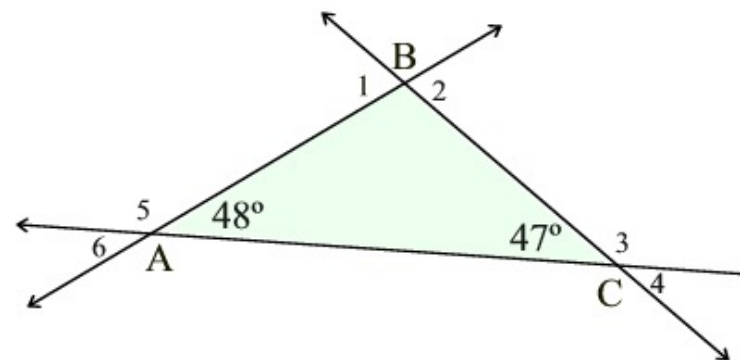
Directions:

1. In the diagram at the right, find:

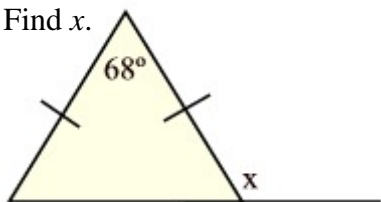
- a)  $m\angle ABC =$  \_\_\_\_\_      b)  $m\angle 1 =$  \_\_\_\_\_  
 c)  $m\angle 2 =$  \_\_\_\_\_      d)  $m\angle 3 =$  \_\_\_\_\_  
 e)  $m\angle 4 =$  \_\_\_\_\_      f)  $m\angle 5 =$  \_\_\_\_\_  
 g)  $m\angle 6 =$  \_\_\_\_\_      h)  $m\angle 1 + m\angle 3 + m\angle 5 =$  \_\_\_\_\_

i) the shortest side of  $\triangle ABC$  \_\_\_\_\_

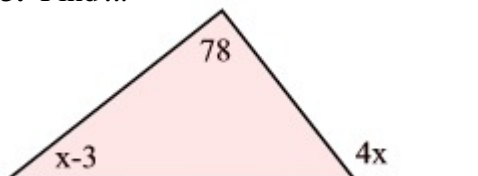
j) Is  $\angle 6$  an exterior angle for  $\triangle ABC$ ? \_\_\_\_\_ Explain.



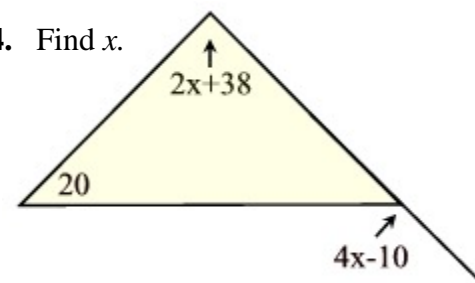
2. Find  $x$ .



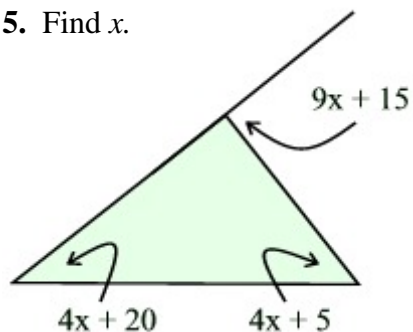
3. Find  $x$ .



4. Find  $x$ .



5. Find  $x$ .



6. Find the measures of the exterior angle at each base angle of an isosceles triangle whose vertex angle is  $50^\circ$ .

7. Find  $m\angle ABC$

